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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,835

02/20/2004

Richard G. Pace

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09/21/2006

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EXAMINER

AHN, SANGWOO

ART UNIT

PAPER NUMBER

2166

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

Application No.

10/783,835

Examiner

Sangwoo Ahn

Applicant(s)

PACE ET AL.

Art Unit

2166

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/23/2005.
2. ☒ The allowed claim(s) is/are 1-6 and 17-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 07192004.05122006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 20060919.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.



**HOSAIN ALAM  
SUPERVISORY PATENT EXAMINER**

### **DETAILED ACTION**

This communication is in response to the Preliminary Amendment filed on 8/23/2005.

After a thorough examination of the present application and in light of the prior arts, claims 1 – 6, 17 – 20 are allowed.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Micah D. Stolowitz on September 19, 2006.

The application has been amended as follows:

**Cancel claims 7 – 16.**

**Rewrite claim 1 as follows:**

"1. A computer-implemented method of reorganizing an ICF catalog comprising a key sequential data set (KSDS) BCS in a VSAM system while the catalog is open, the BCS comprising a data component and an index component, the reorganization method comprising the steps of:

(a) opening the catalog with exclusive control;

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- (b) creating a backup of the index component;
- (c) using a number of sequence set records of the index component, constructing a logical CI correlation table, the table indicating, for each data CI in the data set, a physical location of the CI in the data component and a logical location of the CI in key sequence order;
- (d) using the logical CI correlation table, reading data CIs from the data component out to an internal backup data set in potential logical key sequence order so as to form an ordered backup of the data without sorting;
- (e) clearing all data CIs in the data component and clearing the index component;
- (f) updating BCS VSAM control blocks so as to reflect an empty BCS;
- (g) reloading the data set from the ordered backup, sorting records if necessary, and using standard VSAM I/O to reload the data records and reconstruct the index; and
- (h) closing the catalog to update VVRs in a VVDS and re-sync the catalog with CAS."

**Rewrite claim 2 as follows:**

"2. The computer-implemented method according to claim 1 wherein the logical CI correlation table is constructed in random access storage."

**Rewrite claim 3 as follows:**

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“3. The computer-implemented method according to claim 1 wherein the reloading step includes applying the original free space attributes of the BCS.”

**Rewrite claim 4 as follows:**

“4. The computer-implemented method according to claim 1 and further comprising creating an ESTAE environment prior to said creating a backup of the index component, and terminating the ESTAE environment after said reloading step.”

**Rewrite claim 5 as follows:**

“5. The computer-implemented method according to claim 1 and further comprising checking for errors during the reloading step and, if an error is detected, recovering the catalog to its pre-reorganization state.”

**Rewrite claim 6 as follows:**

“6. The computer-implemented method according to claim 5 and wherein said recovering step comprises copying index and data CIs from the internal backup into the BCS physical locations indicated in the internal backup, thereby restoring the index and data component to the pre-reorganization state.”

**Rewrite claim 17 as follows:**

“17. A method of stabilizing an ICF catalog in a VSAM system preparatory to reorganizing the catalog, the method comprising the steps of:

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- (a) issuing an instruction to obtain a first timestamp;
- (b) reading a number of BCS VVR records to obtain the latest BCS refresh timestamp;
- (c) opening the BCS with a standard VSAM OPEN macro;
- (d) issuing a RESERVE macro for a SYSIGGV2 resource name, to obtain exclusive control of the catalog;
- (e) obtaining VVRs for the data and index components of the BCS from a VVDS on a volume where the BCS resides;
- (f) comparing the first timestamp to the latest BCS refresh timestamp stored in the BCS's data component VVR; and
- (g) if the latest BCS refresh timestamp is greater, repeating the foregoing steps (a) through (f), inclusive, until the latest BCS refresh timestamp is equal or less than the timestamp obtained prior to the latest iteration of the step (c) opening process."

**Rewrite claim 18 as follows:**

"18. The computer-implemented method according to claim 1 and further comprising an initial step of stabilizing the catalog."

**Rewrite claim 19 as follows:**

"19. The computer-implemented method according to claim 18 wherein stabilizing the catalog comprises the steps of:

- (a) issuing an instruction to obtain a first timestamp;

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(b) reading a number of BCS VVR records to obtain the latest BCS refresh timestamp;

(c) opening the BCS with a standard VSAM OPEN macro;

(d) obtaining VVRs for the data and index components of the BCS from a VVDS on a volume where the BCS resides;

(e) comparing the first timestamp to the latest BCS refresh timestamp stored in the BCS's data component VVR; and

(f) if the latest BCS refresh timestamp is greater, repeating the foregoing steps (a) through (e), inclusive, until the latest BCS refresh timestamp is equal or less than the timestamp obtained prior to the latest iteration of the step (c) opening process.”

**Rewrite claim 20 as follows:**

“20. The computer-implemented method according to claim 1 wherein opening the catalog with exclusive control comprises issuing a RESERVE macro for a SYSIGGV2 resource name.”

***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

Claim 1 identifies the distinct feature of reorganizing an ICF catalog comprising a key sequential data set (KSDS) BCS in a VSAM system while the catalog is open, the method comprising the steps (a) through (h).

Claim 17 identifies the distinct feature of stabilizing an ICF catalog in a VSAM system preparatory to reorganizing the catalog, the method comprising the steps (a) through (g).

The above features in conjunction with all other limitations of the independent and dependent claims 1 – 6 and 17 – 20 are hereby allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



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**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sangwoo Ahn whose telephone number is (571) 272-5626. The examiner can normally be reached on M-F 10-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sangwoo Ahn  
Patent Examiner  
AU 2166

9/19/2006 SW

  
**HOSAIN ALAM**  
**SUPERVISORY PATENT EXAMINER**